REMARKS

Claims 1-20 are pending in the present application.

Claims 1-4, 8-11, and 15-17 stand rejected under 35 U.S.C. §102(b) as being anticipated by Driller et al. (U.S. Patent Number 5,109,596) (hereinafter 'Driller'). Applicant respectfully traverses this rejection.

Claims 5-7, 12-14, and 18-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Driller. Applicant respectfully traverses this rejection.

Applicant discloses at page 4, lines 23-26

> "As will be described in greater detail below in conjunction with the description of FIG. 2 through FIG. 4, series resistor R1 may be implemented **using a resistive material as the contact pin material** of interposer 160." (Emphasis added)

Applicant also discloses at page 7, lines 13-15

> "In addition contact pins 165 may be implemented using pliable resistive material that may provide a compression connection when mated between system board 150 and test board 170." (Emphasis added)

Applicant also discloses at page 6, lines 16-22

> "As described above, one or more of the contact pins may provide a series resistance, such as resistance R1 of FIG. 1, to the signal that it conveys. It is noted that many conventional contact pin polymers used to convey signals are made using highly conductive materials (e.g., a silver-based polymer) having very low or even negligible resistance values." (Emphasis added)

Applicant further discloses at page 8, lines 1-10

> "In one embodiment, the resistance value of the resistive material may have the same order of magnitude as the characteristic impedance value of the signal traces and drives associated with the conveyance of the signal.

Thus, in one embodiment, the resistive material may provide a resistance value greater than 5 ohms. For example, in one specific implementation, a resistance value of 20 ohms may be appropriate depending on the frequency of the signal, the signal trace characteristics and the impedance of the output driver of DUT 20. This is in contrast to conventional conductive polymers which strive to keep the resistance value as small as practicable. It is noted that generally speaking, the resistive value should not be large enough to prevent propagation of the signals through interposer 160." (Emphasis added)

Applicant's claim 1 recites

"An apparatus for conveying signals between a first circuit board and a second circuit board, said apparatus comprising:
a dielectric substrate having a first side forming a first surface and a second side forming a second surface; and
a plurality of contact pins each configured to convey electrical signals;
wherein each of said plurality of contact pins extends through said dielectric substrate and protrudes beyond said first surface and said second surface; and
wherein one or more of said plurality of contact pins is formed using a pliable resistive material." (Emphasis added)

The Examiner asserts that Driller teaches each and every element recited in Applicant's claim 1. Specifically, the Examiner asserts that Driller teaches that the contact pins are formed using pliable resistive material. Applicant respectfully disagrees with the Examiner's assertion. In fact, Driller discloses at col. 2, lines 31-39

"According to a first embodiment of the present invention, an adapter board is provided in which a plurality of cushion-like plugs from an electrically conductive and resilient elastomer is provided on the surface thereof such that each cushion-like plug is permanently attached to the contact surface of the adapter board. That is, **on each contact surface** of the adapter board, there is provided **a separate, individual "spring cushion", made from a resilient elastomer material**."

Driller also discloses at col. 3, line 55 through col. 4, line 11

"Each contact area 12 is linked to an allocated contact contact area 13 on the other side of the adapter board 8 **by the usual circuit board techniques**, using conductor tracks (not shown in the drawing) on one of the two surfaces of the adapter board, and plated through holes, i.e. conductive areas in the adapter board running in the direction of the Z-

> axis, vertical to the adapter board. Accordingly, a test current from the testing device can flow from one contact of the basic grid 3 to the related contact area 13 on one side of the adapter board, on to the other contact are 12 on the other side of the adapter board, and from there to the connection point 6 on the test specimen 4 which is to be tested. To ensure even contact pressure, and to therefore ensure correct connection of the test specimen test contact areas of the contact arrangement, as shown in FIG. 1, a plug 14 or 15 made from an **electrically conductive elastomer** is arranged on each contact area 12 or 13 of the adapter board 8. These plugs are elastically compressible, so that they ensure both the necessary contact pressure between the test specimen 4 and the basic grid 3 and the equalization of any variations in contact height which may unintentionally arise from inaccuracies in production."

Driller further discloses at col. 4, lines 27-34

> "For the purpose of the present adapter board technique, a silicone rubber containing finely distributed **metal particles** is preferred as the electrically conductive resilient elastomer material of the plugs 14, 15 shown in FIGS. 1-3. However, other **conductive** resilient elastomers such as carbon-enriched polyurethanes are also known in the state of the art and can be used here."

From the foregoing, Driller teaches forming only a portion of the contact pin with a conductive material. This is in contrast to Applicant's claimed contact pin, which is formed using a resistive material. Thus, Applicant submits Driller **does not teach or disclose** "wherein one or more of said plurality of contact pins is formed using a pliable resistive material," as recited in Applicant's claim 1.

In regard to the Examiner's rejection of Applicant's claim 7, Applicant respectfully disagrees with the Examiner's assertion that it would be obvious to have the resistive material have a resistance value greater than 5 ohms, even in view of U.S. Publication 20020108778 or U.S. Patent Number 6,108,212.

Applicant can find no reference whatsoever in Driller to any benefit of having anything but a purely conductive signal path. Furthermore, it is clear to the Applicant that Driller intends that the material be used solely as a means of equalizing height differences between the test board and another board. Since Driller makes a point of providing the conductive details of the material and is silent with respect to any resistive

properties that a material may provide, it appears to the Applicant that any resistance in the contacts of Driller would be undesirable.

U.S. Publication 20020108778 discloses using carbon-based cladding as a series resistance to reduce propagation delays. However, U.S. Publication 20020108778 **does not teach or disclose** "wherein one or more of said plurality of contact pins is formed using a pliable resistive material," as recited in Applicant's claim 1. U.S. Publication 20020108778 also does not teach or disclose any particular resistance values.

U.S. Patent Number 6,108,212 discloses an electrically resistive volume intervenes between the pad and the terminal to eliminate or at least substantially reduce electrical resonances and reflections that may otherwise degrade the signal integrity. Thus, U.S. Patent Number 6,108,212 **does not teach or disclose** "wherein one or more of said plurality of contact pins is formed using a pliable resistive material," as recited in Applicant's claim 1. U.S. Publication 20020108778 also does not teach or disclose any particular resistance values.

Furthermore, Applicant does not claim using resistive cladding or a resistive volume between a pad and a terminal. As stated above, Applicant uses contact pins that are made from resistive material having a specified resistance.

MPEP §2143.01 states at page 2100-131, col. 1 par. 2 "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." Thus, Applicant can find no motivation to combine the references as the Examiner has suggested.

MPEP §2143.01 also states at page 2100-129 col. 2, 5th par. "*In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998) (The combination of the references taught element of the claimed invention, however, without a motivation to combine, a rejection based on a prima facie case of obviousness was held improper).

Accordingly, Applicant submits that claim 1, along with its dependent claims, patentably distinguishes over Driller and over Driller in view of US Publication 20020108778, and over Driller in view of US Patent 6,108,212.

Applicant's claims 8 and 15 recite features that are similar to the features recited in claim 1. Accordingly, Applicant submits claims 8 and 15, along with their respective dependent claims, patentably distinguish over Driller and over Driller in view of US Publication 20020108778, and over Driller in view of US Patent 6,108,212.

The Examiner objected to the drawings for failing to show various details that the Examiner believes are necessary to the understanding of the invention. Although Applicant believes the drawings and the specification, as originally filed, provide sufficient detail to the understanding of the invention, Applicant has amended the drawings and the specification to expedite allowance. Applicant believes no new matter has been entered and that the amendments should overcome the Examiner's objection. Specifically, Applicant has replaced drawing sheet 1 with a replacement drawing sheet 1, which includes an amended FIG. 1. In addition, Applicant has replaced drawing sheet 2 with a replacement drawing sheet 2, which includes an amended FIG. 2.

CONCLUSION

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5681-66200/SJC.

Respectfully submitted,

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IN THE DRAWINGS:

Please replace drawing sheet 1 with replacement sheet 1, which includes an amended FIG. 1. Please replace drawing sheet 2 with replacement drawing sheet 2, which includes an amended FIG. 2.